

#2 / IUS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): RUSSELL H. LAMBERT, et al.	
Serial No.:	
Filed: September 1, 1999	Group Art Unit:
Title: MICROPHONE ARRAY SYSTEM FOR NOISY MULTIPATH ENVIRONMENTS	Examiner:
Attorney Docket No.: 15-0195	

Assistant Commissioner for Patents
Washington, D.C. 20231

1c503 U.S. PTO
09/30010
09/01/99

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

This Information Disclosure Statement is submitted:

- ☒ under 37 CFR 1.97(b), or
(Within three months of filing national application; or date of entry of international application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:
- ☐ Certification under 37 CFR 1.97(e), or
 - ☐ a \$240.00 fee under 37 CFR 1.17(p), or
- (After the CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with a:
- ☐ Certification under 37 CFR 1.97(e), and
 - ☐ a petition under 37 CFR 1.97(d)(2)(ii), and
 - ☐ a \$130.00 petition fee set forth in 37 CFR 1.17(i)(1).
- (Filed after final action or notice of allowance, whichever occurs first, but before payment of the issue fee)

☒ Applicant(s) submit herewith Form PTO 1449-Information Disclosure Citation together with copies, of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

The relevance of the attached references is that this is the closest art of which Applicant is aware. Applicant submits that the above references taken alone or in combination neither anticipate nor render obvious the present invention. Consideration of the foregoing in relation to this application is respectfully requested.

It is requested that the information disclosed herein be made of record in this application.

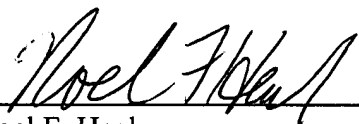
Respectfully submitted,

~~I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C.~~

~~Date of Deposit:~~

~~Typed Name:~~

~~Signature:~~



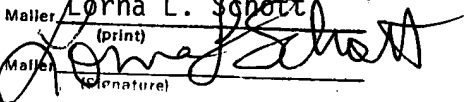
Noel F. Heal
Attorney/Agent for Applicant(s)
Reg. No. 26074

Date: July 15, 1999

Telephone No.: (310) 373-1311

Express Mail Mailing Label No. EJ789028426US
Date of Deposit 09/01/99

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Mailor Lorna L. Schott
(print)

Mailor (Signature)

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>				Docket Number (Optional) 15-0195		Application Number		
				Applicant(s) Shi-Ping Hsu et al.				
				Filing Date 09/01/99		Group Art Unit		
U.S. PATENT DOCUMENTS								
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
AAA		4,238,746	Dec. 1980	McCool et al.	333	166		
AAA		4,536,887	Aug. 1985	Kaneda et al.	381	92		
AA		4,559,642	Dec. 1985	Miyaji et al.	381	92		
AA		4,703,506	Oct. 1987	Sakamoto et al.	381	92		
AA		4,802,227	Jan. 1989	Elko et al.	381	92		
AA		4,956,867	Sep. 1990	Zurek et al.	381	94.7		
AA		5,353,376	Oct. 1994	Oh et al.	704	233		
FOREIGN PATENT DOCUMENTS								
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>								
AA		Frost O.A., "An Algorithm for Linearly Constrained Adaptive Array Processing," Proc. of the IEEE, Vol. 60, No. 8, Aug. 1972, pp. 926-935. /						
AA		Griffiths L.J. et al., "An Alternative Approach to Linearly Constrained Adaptive Beamforming," IEEE Trans. on antennas & Propagation, Jan. 1982, pp. 27-34. /						
EXAMINER				DATE CONSIDERED /				

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>		Docket Number (Optional) 15-0195	Application Number
		Applicant(s) Shi-Ping Hse et al.	
		Filing Date 09/01/99	Group Art Unit
*EXAMINER INITIAL	OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>		
AAR	Boll S.F., "Suppression of Acoustic Noise in Speech using Spectral Subtraction," IEEE Trans. on Acoustics Speech and Signal Processing, Vol. ASSP-27, No. 2, April 1979, pp. 113-120		
AAR	Ferrara E.A., "Fast Implementation of LMS Adaptive Filters," IEEE Trans. on Acoustics Speech and Signal Processing, Vol. ASSP-28, No. 4, 1980, pp. 474-475		
	Haykin S., "Filter Theory," Prentice Hall, Upper Saddle River, NJ, 1996 (Text, copy not provided)		
	Oppenheim A.V., et al. "Discrete-Time Signal Processing," Prentice Hall, Englewood Cliff, NJ, 1989 (Text, copy not provided)		
EXAMINER		DATE CONSIDERED	
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			